

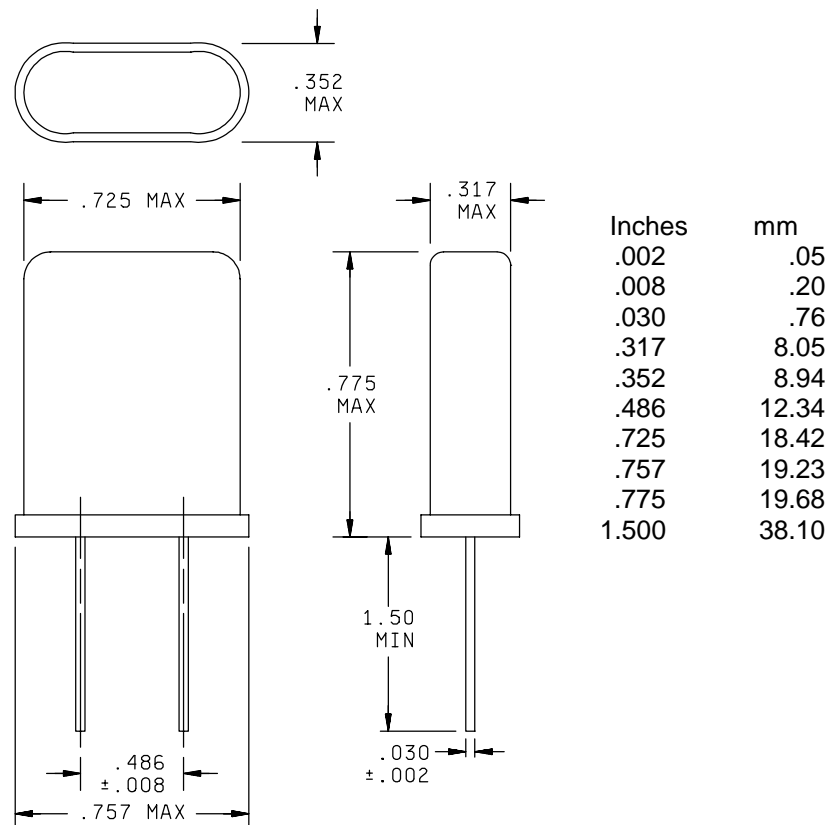
PERFORMANCE SPECIFICATION SHEET

CRYSTAL UNIT, QUARTZ, CR157/U

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification and MIL-PRF-3098.

Pertinent characteristics: 0.8 MHz to 20 MHz; fundamental; noncontrolled; series resonance.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. The wire leads shall be tinned, suitable for soldering.
4. Marking shall be in accordance with MIL-PRF-3098.

FIGURE 1. Crystal unit - CR157/U.

REQUIREMENTS:

Dimensions, marking, and configuration: See figure 1.

Frequency range: 0.8 MHz to 20 MHz, inclusive.

Frequency tolerance: ± 50 ppm.

Equivalent resistance: See table I.

TABLE I. Equivalent resistance.

Frequency range, inclusive. MHz.	Maximum resistance Ohms
0.80 to 0.85	520
0.85+ to 0.90	480
0.90+ to 1.00	440
1.00+ to 1.12	400
1.12+ to 1.25	380
1.25+ to 1.37	340
1.37+ to 1.50	300
1.50+ to 1.62	280
1.62+ to 1.75	250
1.75+ to 1.87	220
1.87+ to 2.00	190
2.00+ to 2.12	170
2.12+ to 2.25	150
2.25+ to 2.60	130
2.60+ to 3.00	90
3.00+ to 3.40	70
3.40+ to 3.75	52
3.75+ to 4.00	45
4.00+ to 5.00	37
5.00+ to 7.00	25
7.00+ to 10.00	20
10.00+ to 15.00	18
15.00+ to 20.00	15

Mode of oscillation: Fundamental.

Operating temperature range (noncontrolled): -55°C to $+105^{\circ}\text{C}$, inclusive.

Rated drive level: 1.0 mW, maximum.

Resonance: Series.

Capacitance, shunt: 7.0 pF, maximum.

Shock (specified pulse):

	0.8 MHz to 2.0 MHz	2.0 MHz+ to 20.0 MHz
Frequency change permitted:	± 10 ppm	± 5 ppm
Equivalent resistance change permitted:	± 15 percent	± 10 percent

MIL-PRF-3098/137B

Vibration: Method 201, MIL-STD-202.	0.8 MHz to 2.0 MHz	2.0 MHz+ to 20.0 MHz
Frequency change permitted:	±10 ppm	±5 ppm
Equivalent resistance change permitted:	±15 percent	±10 percent

Temperature cycling:	0.8 MHz to 2.0 MHz	2.0 MHz+ to 20.0 MHz
Frequency change permitted:	±10 ppm	±5 ppm
Equivalent resistance change permitted:	±15 percent	±10 percent

Aging:

Frequency change permitted: ±5 ppm.

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:
 Army - CR
 Navy - EC
 Air Force -85

Preparing activity:
 Army - CR

Agent:
 DLA - CC

Review activities:
 Army - AR, MI, SM
 Navy - AS, MC, SH
 Air Force - 17, 19, 84

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